UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL R. HARTER, ROBERT J. HARTER, and
TYLER R. HARTER

Appeal 2009-2002
Application 10/813,421
Technology Center 3600

Decided:[1] April 23, 2009

Before HUBERT C. LORIN, DAVID B. WALKER, and BIBHU R.
MOHANTY, *Administrative Patent Judges*.

MOHANTY, *Administrative Patent Judge*.

DECISION ON APPEAL

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[1] The two-month time period for filing an appeal or commencing a civil
action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date
shown on this page of the decision. The time period does not run from the
Mail Date (paper delivery) or Notification Date (electronic delivery).

STATEMENT OF THE CASE

The Appellants seek our review under 35 U.S.C. § 134 of the final rejection of claims 1 and 3-33 which are all the pending claims in the application. Oral arguments were heard on April 7, 2009. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF THE DECISION

We REVERSE.

THE INVENTION

The Appellants' claimed invention is directed to a method of identifying allergens and other influencing agents that may cause a reaction in an individual and to a software program for carrying out the method (Specification 2:5-7). Claim 1, reproduced below, is representative of the subject matter of appeal.

> 1.   A method of using a computer and a computer display for identifying a suspect influencing agent that may be causing a reaction in an individual, wherein the suspect influencing agent is one of a plurality of possible influencing agents, the method comprising:
>
>   displaying the plurality of possible influencing agents on the computer display;
>
>   displaying the reaction on the computer display;
>
>   for a first period, selecting a first plurality of influencing agents from the plurality of possible

influencing agents, wherein the individual was
exposed to the first plurality of influencing agents
during the first period, wherein the step of
selecting the first plurality of influencing agents is
via the computer;

for a second period following the first
period, selecting a second plurality of influencing
agents from the plurality of possible influencing
agents, wherein the individual was exposed to the
second plurality of influencing agents during the
second period, wherein the step of selecting the
second plurality of influencing agents is via the
computer;

selecting, via the computer, the reaction
that the individual experienced during at least one
of the first period, the second period, and a third
period, wherein the third period follows the second
period;

computing a plurality of correlations
corresponding to the plurality of possible
influencing agents as each of the plurality of
possible influencing agents relate to the reaction;
and

based on the plurality of correlations,
determining and displaying the suspect influencing
agent.

THE REJECTIONS

The Examiner relies upon the following as evidence in support of the

rejections:

Rappaport	US 4,752,889	Jun. 21, 1988
Mebane	US 5,486,999	Jan. 23, 1996
Small	US 5,910,421	Jun. 8, 1999
Kadtke	US 6,401,057 B1	Jun. 4, 2002

Teller   US 2002/0013538 A1   Jan. 31, 2002

Berkow, Robert; *The Merck Manual of Diagnosis and Therapy*, 88-90, 328-31, 335-36, and 650 (Merck Research Labs., 16th Ed., 1992).

Evans, R. Scott; *A Computer-Assisted Management Program for Antibiotics and Other Antiinfective Agents*, 338 The New England Journal of Medicine 232-38 (Jan. 22, 1998).

Lowy, Franklin, D.; *Staphylococcus Aureus Infections*, 339 The New England Journal of Medicine, 520-32 (Aug. 20, 1998).

The following rejections are before us for review:

1.   Claims 1, 3-4, 7, 12, and 14-29 are rejected under 35 U.S.C. § 103(a) as unpatentable over Berkow and Evans.

2.   Claims 5, 6, 8, and 32 are rejected under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Rappaport.

3.   Claim 9 is rejected under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Kadtke.

4.   Claims 10-11 are rejected under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Small.

5.   Claim 13 is rejected under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Lowy.

7.   Claim 30 is rejected under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Mebane.

8.   Claim 31 is rejected under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Teller.

9.   Claim 33 is rejected under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, Rappaport, Kadtke and Small.

THE ISSUE

At issue is whether the Appellants have shown that the Examiner erred in making the aforementioned rejections.

With regards to claims 1 and 3-32 this issue turns on whether Berkow and Evans disclose "computing a plurality of correlations corresponding to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to the reaction" and "based on the plurality of correlations, determining and displaying the suspect influencing agent."

With regards to claim 33 this issue turns on whether Berkow, Evans, Rappaport, Kadtke and Small disclose or suggest "computing a plurality of correlations corresponding to the plurality of possible influencing agents, wherein the plurality of correlations reflect the likelihood that the plurality of possible influencing agents will cause a future reaction" and "plotting a graph of the suspect influencing agent and the reaction versus time."

FINDINGS OF FACT

We find the following enumerated findings of fact (FF) are supported at least by a preponderance of the evidence:[2]

FF1. Berkow discloses that in the assessment of etiologic factors that confirmation is best accomplished by an allergy evaluation that includes skin testing (pg. 650).

FF2. Berkow discloses that negative skin tests strongly rule against the allergic component. Positive skin tests represent only the potential for allergic reactivity to the allergen in question (pg. 650).

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[2] *See Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Patent Office).

FF3. Berkow discloses that the clinical significance of the (test) results are correlated to the symptoms and related to environmental exposures (pg. 650).

FF4. Berkow does not specifically disclose correlating a plurality of possible influencing agents as each of the influencing agents relate to the reaction.

FF5. Berkow does not specifically disclose that based on correlations between a plurality of testing agents and reactions determining a single suspect influencing agent.

FF6. Evans is directed to a computerized based decision-support program linked to computer-based patient records that can assist physicians in the use of infective care (Abstract).

FF7. Evans does not disclose determining a single suspect influencing agent based on correlations between plurality of testing agents and reactions.

FF8. Rappaport discloses an interactive display system which allows a user to display chunks of knowledge in a graphic window (Title, Abstract).

PRINCIPLES OF LAW

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3)

the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 550 U.S. at 407 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.")

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *id.* at 415-16, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11 How. 248." *KSR,* 550 U.S. at 415, (citing *Graham*, 383 U.S. at 12 (emphasis added)), and reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." The Court also stated "[i]f a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability." *Id.* at 417. The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.*

The Court noted that "[t]o facilitate review, this analysis should be made explicit." *Id.* at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")). However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court

can take account of the inferences and creative steps that a person of
ordinary skill in the art would employ." *Id.*

ANALYSIS

Claims 1, 3-4, 7, 12 and 14-29

The Appellants argue that the rejection of claim 1 under 35 U.S.C. §
103(a) as unpatentable over Berkow and Evans is improper because Berkow
fails to disclose the claimed limitations requiring "computing a plurality of
correlations corresponding to the plurality of possible influencing agents as
each of the plurality of possible influencing agents relate to the reaction" and
"based on the plurality of correlations, determining and displaying the
suspect influencing agent" (Br. 18). The Appellants argue that in Berkow
the *test results and the symptoms* are compared for correlation whereas in
the invention the *exposures and the symptoms* are compared for correlation
(Br. 19). The Appellants argue that Berkow does not "calculate any
correlation" between the symptoms and exposures (Reply Br. 19-20). The
Appellants argue that the food elimination diet of Berkow fails to determine
which of multiple foods is causing the problem (Br. 27) and fails based on
the correlations to determine and display the suspect agent (Br. 28-29). The
Appellants also argue that Evans discloses merely a computerized record
keeping system for identifying drug related errors and is not used for
identifying patient allergies. (Br. 26).

In contrast, the Examiner has determined that Berkow and Evans
suggest the claimed invention. The Examiner has found that Berkow
teaches using a skin prick test to identify an allergic reactivity to an allergen
and correlates symptoms to environmental exposures (Ans. 20). The
Examiner considers Berkow's elimination diet to identify a food allergen

that may be causing an allergic reaction and determining a relationship of a symptom to a food (Ans. 21). The Examiner has found that Berkow teaches identifying a possible allergen by determining how closely the occurrence of the symptom relates to the exposure of food and considers this to be a correlation between the allergen and symptom (Ans. 21). The Examiner has also determined that Evans teaches a computerized decision-support program linked to patient records that can assist physicians in the use of anti-infective agents and improve the quality of care (Ans. 5). The Examiner has determined that it would have been obvious to combine the teachings of Evans and Berkow to facilitate physician diagnosis by providing patient data at the point of care (Ans. 6).

We agree with the Appellants. We first construe the meaning of the word "correlation" as used by the Appellants in the claims. We determine the scope of the claims in patent applications "not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction 'in light of the specification as it would be interpreted by one of ordinary skill in the art.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (*en banc*) (*quoting In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004)). The Specification at page 7, lines 13-15 defines "correlation" as "a value or symbol that provides at least some indication of how closely the occurrence of one item relates to another" and we use this definition in defining the term in the claims.

Claim 1 requires "computing a plurality of correlations corresponding to the plurality of possible influencing agents as each of the plurality of possible influencing agents relate to the reaction." Berkow discloses that in the assessment of etiologic factors that confirmation is best accomplished by an allergy evaluation that includes skin testing (FF1). Berkow discloses that

the clinical significance of the (test) results are correlated to the symptoms and related to environmental exposures (FF3). Berkow fails to specifically disclose correlating a plurality of possible influencing agents as each of the influencing agents relate to the reaction (FF4). Further, Berkow does not disclose "based on the plurality of correlations, determining and displaying the suspect influencing agent" (FF5) as required in claim 1. While Berkow does disclose the use of an elimination diet, such a test provides for an elimination of foods as opposed to a "correlation" or a value or symbol that provides at least some indication of how closely the occurrence of one influencing agent relates to a reaction as described in the Specification. Further, the citation in Berkow relating to elimination diets (page 329) has not been shown to relate to Berkow's citation on allergy skin testing (page 650) which is from an entirely different section of the referenced Merck Manual. As Berkow fails to disclose or suggest the above identified claim limitations we will not sustain the rejection of claim 1 under 35 U.S.C. § 103(a) as unpatentable over Berkow and Evans.

The rejection of dependent claims 3-4, 7, 12, and 14-29 is not sustained for these same reasons.

Claims 5, 6, 8, and 32

The rejection of claims 5, 6, 8, and 32 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Rappaport is not sustained for the same reasons as given above for claim 1. The Examiner has not asserted that the Rapport reference discloses the cited missing claim limitations identified as not being in the Berkow reference and discussed above.

Claim 9

The rejection of claim 9 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Kadtke is not sustained for the same reasons as given above for claim 1. The Examiner has not asserted that the Kadtke reference discloses the cited missing claim limitations identified as not being in independent claim 1.

Claims 10-11

The rejection of claims 10-11 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Small is not sustained for the same reasons as given above for claim 1. The Examiner has not asserted that the Small reference discloses the cited missing claim limitations identified as not being in independent claim 1

Claim 13

The rejection of claim 13 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Lowy is not sustained for the same reasons as given above for claim 1. The Examiner has not asserted that the Lowy reference discloses the cited missing claim limitations identified as not being in independent claim 1.

Claim 30

The rejection of claim 30 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Mebane is not sustained for the same reasons as given above for claim 1. The Examiner has not asserted that the Mebane reference discloses the cited missing claim limitations identified as not being in independent claim 1.

Claim 31

The rejection of claim 30 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Teller is not sustained for the same reasons as given above for claim 1. The Examiner has not asserted that the Teller reference discloses the cited missing claim limitations identified as not being in independent claim 1.

Claim 33

Claim 33 contains a first limitation similar to the one addressed in regard to claim 1 above for "computing a plurality of correlations corresponding to the plurality of possible influencing agents, wherein the plurality of correlations reflect the likelihood that the plurality of possible influencing agents will cause a future reaction." Claim 33 also includes a second limitation for "plotting a graph of the suspect influencing agent and the reaction versus time."

Berkow fails to specifically disclose correlating a plurality of possible influencing agents as each of the influencing agents relate to the reaction (FF4) and thus fails to disclose the first identified limitation in claim 33. Further, Berkow does not disclose "based on the plurality of correlations, determining and displaying the suspect influencing agent" (FF5) since no single suspect influencing agent is identified as claimed and thus fails to disclose the second identified limitation in claim 33. Rappaport does not relate to influencing agents or reactions. Rappaport relates to an interactive display system (FF8) and does not disclose or suggest the cited claim limitations noted by the Appellants. The Examiner has not asserted that Kadtke and Small disclose these limitations. As Berkow, Evans, Rappaport,

Kadtke and Small fail to disclose or suggest the above identified claim limitations we will not sustain the rejection of claim 33.

CONCLUSIONS OF LAW

We conclude that Appellants have shown that the Examiner erred in rejecting claims 1, 3-4, 7, 12, and 14-29 under 35 U.S.C. § 103(a) as unpatentable over Berkow and Evans.

We conclude that Appellants have shown that the Examiner erred in rejecting claims 5, 6, 8, and 32 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Rappaport.

We conclude that Appellants have shown that the Examiner erred in rejecting claim 9 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Kadtke.

We conclude that Appellants have shown that the Examiner erred in rejecting claims 10-11 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Small.

We conclude that Appellants have shown that the Examiner erred in rejecting claim 13 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Lowy.

We conclude that Appellants have shown that the Examiner erred in rejecting claim 30 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Mebane.

We conclude that Appellants have shown that the Examiner erred in rejecting claim 31 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, and Teller.

We conclude that Appellants have shown that the Examiner erred in rejecting claim 33 under 35 U.S.C. § 103(a) as unpatentable over Berkow, Evans, Rappaport, Kadtke and Small.

DECISON

The Examiner's rejection of claims 1 and 3-33 is reversed.

REVERSED

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